

CLAIMS

What is claimed is:

- 1 1. An adhesive suitable to provide a bond between components, comprising:
2 an adhering material suitable for holding a first surface and a second surface in
3 contact; and
4 a plurality of items disposed in the adhering material, the plurality of items
5 having electromagnetic capability (EMC) shielding characteristics.

- 1 2. The adhesive as described in claim 1, wherein an item of the plurality of items
2 includes at least one of ceramic ferromagnetic material and magnetic shielding
3 alloy.

- 1 3. The adhesive as described in claim 2, wherein the ceramic ferromagnetic
2 material includes ferrite.

- 1 4. The adhesive as described in claim 1, wherein a quantity of the plurality of
2 items disposed in the adhering material is sufficient to provide EMC shielding
3 between the first surface and the second surface.

- 1 5. The adhesive as described in claim 1, wherein the first surface is included on an
2 integrated circuit and the second surface is included on a heat sink.

- 1 6. The adhesive as described in claim 1, wherein items of the plurality of items are
2 shaped to include at least one of a disk, sliver, hexagonal, triangular,
3 parallelogram, oval, diamond, polyhedral and polymorphic.

- 1 7. The adhesive as described in claim 1, wherein an item of the plurality of items

2 is formed wherein a longest dimension of the item is at least one of equal to and
3 less than one-half of a distance between the first surface and the second surface.

1 8. The adhesive as described in claim 7, wherein an item of the plurality of items
2 is formed wherein a longest dimension of the item is at least one of equal to and
3 greater than one-quarter of a distance between the first surface and the second
4 surface.

1 9. The adhesive as described in claim 7, wherein an item of the plurality of items
2 is formed wherein a longest dimension of the item is at least one of equal to and
3 greater than one-quarter of a distance between the first surface and the second
4 surface.

1 10. The adhesive as described in claim 1, wherein an item of the plurality of items
2 is formed wherein a smallest dimension of the item is at least one of equal to
3 and less than one-tenth of a distance between the first surface and the second
4 surface.

1 11. The adhesive as described in claim 1, wherein an item of the plurality of items
2 is formed wherein a midpoint width of the item is at least one of equal to and
3 less than one-quarter of a distance between the first surface and the second
4 surface.

- 1 12. An electrical system, comprising:
2 a first electrical component suitable for providing a function, the first electrical
3 component including a first surface;
4 a second component suitable for providing a function, the second component
5 including a second surface;
6 an adhering material suitable for holding the first surface of the first electrical
7 component and a second surface of the second component in contact; and
8 a plurality of items disposed in the adhering material, the plurality of items
9 having electromagnetic capability (EMC) shielding characteristics.
- 1 13. The electrical system as described in claim 12, wherein an item of the plurality
2 of items includes at least one of ceramic ferromagnetic material and magnetic
3 shielding alloy.
- 1 14. The electrical system as described in claim 13, wherein the ceramic
2 ferromagnetic material includes ferrite.
- 1 15. The electrical system as described in claim 12, wherein a quantity of the
2 plurality of items disposed in the adhering material is sufficient to provide EMC
3 shielding between the first electrical component and the heat sink.
- 1 16. The electrical system as described in claim 12, wherein the first electrical
2 component is an integrated circuit and the second component is a heat sink.
- 1 17. The electrical system as described in claim 12, wherein items of the plurality of
2 items are shaped to include at least one of a disk, sliver, hexagonal, triangular,
3 parallelogram, oval, diamond, polyhedral and polymorphic.

1 18. The electrical system as described in claim 12, wherein an item of the plurality
2 of items is formed wherein a longest dimension of the item is at least one of
3 equal to and less than one-half of a distance between the first surface and the
4 second surface.

1 19. The electrical system as described in claim 18, wherein an item of the plurality
2 of items is formed wherein a longest dimension of the item is at least one of
3 equal to and greater than one-quarter of a distance between the first surface and
4 the second surface.

1 20. The electrical system as described in claim 18, wherein an item of the plurality
2 of items is formed wherein a longest dimension of the item is at least one of
3 equal to and greater than one-tenth of a distance between the first surface and
4 the second surface.

1 21. The electrical system as described in claim 12, wherein an item of the plurality
2 of items is formed wherein a smallest dimension of the item is at least one of
3 equal to and less than one-tenth of a distance between the first surface and the
4 second surface.

1 22. The electrical system as described in claim 12, wherein an item of the plurality
2 of items is formed wherein a midpoint width of the item is at least one of equal
3 to and less than one-quarter of a distance between the first surface and the
4 second surface.

1 23. An electrical system, comprising:
2 a first electrical component suitable for providing a function, the electrical
3 component including a first surface;
4 a second component including a second surface;
5 a carrier material disposed between the first electrical component and the second
6 component; and
7 a plurality of items disposed in the carrier material, the plurality of items having
8 electromagnetic capability (EMC) shielding characteristics.

1 24. The electrical system as described in claim 23, wherein the plurality of items are
2 formed having a length between 3 microns and 1 millimeter.

1 25. The electrical system as described in claim 23, wherein the carrier material is
2 thermally conductive.